THE MINISTER OF PETROLEUM AND NATURAL GAS (SHRI MANI SHANKAR AIYAR): (a) to (c) The information is being collected and will be laid on the Table of the House.

Production of Bio-diesel

2982. SHRI RAJU PARMAR: Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether it is a fact that some organizations have developed bio-diesel from plants which is energy efficient and cost effective;

(b) whether this bio-diesel is pollution free and cheaper as compared to other petroleum products;

(c) if so, the details thereof; and

(d) what steps are being taken to enhance the production of bio-diesel from plants in future?

THE MINISTER OF PETROLEUM AND NATURAL GAS (SHRI MANI SHANKAR AIYAR): (a) to (c) A few academic and R&D Institutes such as the Indian Institute of Petroleum (IIP), IOCL R&D Center, Punjab Agricultural University, Central Salt & Marine Chemicals Research Institute, etc. and other private entrepreneurs are producing Bio-diesel on a pilot scale for R&D purposes from various vegetable oils/tree borne oilseeds (TBOs) such as *Jatropha Curcus* (Ratan Jyot), *Pongomia* etc. Bio-diesel reduces emissions of various harmful pollutants, though its calorific value is less than that of petro-diesel. Effective 01/01/2006, the public sector oil marketing companies have agreed to purchase Bio-diesel that meets the specified BIS specifications at the initial price of Rs. 25 per litre, which may be reviewed by them every six months.

(d) A Detailed Project Report (DPR) on the National Mission on Bio-diesel has been submitted by the Ministry of Rural Development to the Planning Commission, which, *interalia,* envisages a Demonstration Project involving the plantation of *Jatropha* over 4 lakh hectare on degraded forest lands and non-forest lands for manufacturing Bio-diesel.